

Dustin O'Brien

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Education

Salisbury University

GPA: 3.61/4.0 | *Cum Laude* | Bachelor of Science

Majors: Computer Science, Data Science **Minor:** Math

August 2021 – May 2025

Salisbury, MD

Tracks: Software Engineering, AI/Algorithms

Relevant Experience

Math & Computer Science Tutor

January 2024 – May 2025

Salisbury University | C/C++, Java, Python, Bash, Javascript, PHP, MySQL

Salisbury, MD

- Tutored and explained complex low level Math & Computer Science topics boosting exam scores **up to 35%**.
- Debugged student, simplified codebases handling errors, logical problems, and memory leaks quickly.

Artificial Intelligence Software Intern

June 2024 – September 2024

Salisbury University | Python, Langchain, FAISS, Docker, AWS

Salisbury, MD

- Developed 2 LLM applications use in a collaborative environment to explain environmental issues in a concise way.
- Systems include feature-rich chatbot and markdown file generator to extract client wants using transcript RAG.

System Administration Assistant

May 2024 – August 2024

Salisbury University | Linux, Windows, Python, Pytorch, Anaconda

Salisbury, MD

- Moved, setup, and connected 44 computers across 4 new labs and assured communication with admin's foreman.
- Created LLM based attention benchmarks using Pytorch to test HPCL computers on Salisbury and UMBC systems.

Projects

Chapp | Angular, Node.js, Typescript, Express.js, PostgreSQL, Docker, AWS, Tailwind

July 2025 – Present

- A gamified chatting service this project uses an Angular frontend using PrimeNG component to give a colorful UI.
- Worked on Express.js, Typescript, & Postgres backend for data store, account creation, user sessions, and more.

TestifAI | Python, Langchain, Javascript, Jinja, AWS | UMBC's Best Education, 2nd Overall

September 2024

- An educational test maker for students harnesses LLM technology to write questions off slides & more.
- Worked on web frontend creating Jinja based templates with specialized features such as modifiable text.

Lambda Check | Haskell, Python, SQLite, FastAPI, Jenkins, Docker | UD's Best Financial Hack

February 2024

- Built CI pipeline for Haskell that scan imported packages and source code for known vulnerabilities.
- Developed cabal parsing to gather packages for query backend API. Followed by creating Jenkins pipeline.

Research Presentations

Identifying User Wants Using LLMs | MIT Undergraduate Research Conference — D. O'Brien S. Presley et. al

- An investigation on LLM techniques to distill complex transcripts. Publish in MIT undergrad journal.

Analysis of Collision & Contact Sports Classifications | SUSRC — D. O'Brien, K. Tranfaglia et. al

- A ML driven research project to cluster sports as contact or collision and creation of graph visuals of findings.

Certifications

Certified Cloud Practitioner | Amazon Web Services

July 2025 – July 2028

Technical Skills

Technologies: Angular, React, Next.JS, Express.JS, PostgreSQL, FastAPI, Pytorch, Jinja, Langchain, Tailwind, Sk-learn

Softwares: Linux (Arch, Ubuntu, Debian, Fedora), Git/Github, Jenkins, AWS, Docker, Nginx, Firebase, Android, Node

Languages: Python, Java, Javascript, Typescript, Bash, Zsh, Shell, Haskell, R, SQL, C/C++, HTML/CSS, LaTeX